IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:

Scott Carl SMITH

Serial No: **09/977,370**

Filed : **October 16, 2001**

For : **RUPTURE TESTING FOR GLOVES**

Group Art Unit: **2855**

Examiner: **Andre J. Allen**

#10 Appeal Brief T. 4 wks 9-303

APPLICANT'S APPEAL BRIEF UNDER 35 U.S.C. §1.192

Commissioner of Patents and Trademarks
Washington, DC 20231

Sir:

(1) REAL PARTY IN INTEREST

The real party in interest is the assignee of the application, Microflex Corporation.

(2) RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences.

(3) STATUS OF CLAIMS

Claims 1-19 are pending in the application. Claims 1-17 are rejected and appealed; claims 18 and 19 are objected to as being dependent from a rejected claim but would be allowable if rewritten in independent form.

(4) STATUS OF AMENDMENTS

No Amendments have been filed subsequent to the Final Rejection.

(5) SUMMARY OF THE INVENTION

The rupture testing for gloves secures a sample 35 to a cylinder 15, as seen in Figure 3. A stylus 25 is lowered to a position where movement of the stylus causes movement of the sample to set the initial position of the equipment. Once set, the stylus is moved at a constant speed until the sample ruptures. At this time, the distance the stylus has traveled since the initial point and the force applied by the stylus are measured and recorded. From these measurements, a rupture-resistance is calculated using the equation found on page 5, line 7. The sample may be a glove finger, cuff or palm, and has a uniform thickness.

(6) ISSUES

1. Are claims 1-7 and 9-17 unpatentable as being obvious over U.S. Patent No. 5,507,189 (Kim et al.).

2. Is claim 8 unpatentable as obvious over Kim et al. in view of U.S. Patent No. 6,339,958 (Tsui et al.)

(7) GROUPING OF CLAIMS

1. Claims 1-3,6,7,9-12 and 15-17 stand or fall together.

2. Claims 4,5,13 and 14 stand or fall together.

3. Claim 8 stands or falls alone.

(8) ARGUMENTS

1. The Examiner applies Kim in finding claims 1-3,6,7,9-12 and 15-17 unpatentable. Kim does not disclose the use of a column as the sample 5 is secured between upper and lower die. In contrast, the claimed method recites securing the sample to the top end of a column. Also, the plane strain stretch formability in Kim is based on the punch height at the instant of fracture. The only parameter measured and used to determine

the plane strain stretch formability is the height of the punch and there is no measurement of the force applied by the stylus as recited in claim 1.

Kim discloses the testing of thin steel sheets, a rigid material, especially when compared to the resilient rubber material tested by the invention. There is little concern with movement of the steel when contacted by the punch. Given the rigid nature of steel, the height of the punch when it contacts the sample is known and only the final height need be measured. The claims recite lowering a stylus to contact the sample until movement of the stylus is not possible without movement of the sample, a limitation not disclosed by Kim.

2. Kim et al. discloses the use of the apparatus to test thin steel sheets. The resiliency of steel is much different than material used to make gloves, such as recited in claims 4, 5, 13, and 14. There is no disclosure or suggestion by Kim that the apparatus can be used with the resilient material recited in these claims.

3. Claim 8 recites a column having an aperture at the bottom. Kim discloses clamping the steel sheet between two die. There is no need or purpose for having an aperture in the bottom of the cylinder. This is especially true in light of the fact that the punch rises from below the sample. The sample to be tested by the claimed method covers the top of the cylinder and, under force applied by the stylus, moves downward into the cylinder. There is no need or way to add an aperture to the die disclosed by Kim, regardless of any teaching of Tsui vet al.

CONCLUSION

The claims define limitations which are not disclosed in the prior art and are allowable. It is respectfully requested that the rejections of the Examiner be overturned and the application allowed.

Respectfully submitted,

Christopher J. McDonald
Reg. 41,533

Date: June 7, 2004

HOFFMAN, WASSON & GITLER, PC
2461 South Clark Street
Suite 522 - Crystal Center 2
Arlington, VA 22202
(703) 415-0100

Attorney's Docket: A-6907.AB

A P P E N D I X

1. A method for testing a film sample, comprising:

securing the sample to the top end of a column,

lowering a stylus to contact the sample until movement of the stylus is not possible without movement of the sample,

recording a vertical height of the stylus,

moving the stylus downward until the sample ruptures,

measuring the distance traveled by the stylus from the starting point and the rupture point, and

measuring the force applied by the force applied by the stylus at rupture.

2. The method of claim 1, wherein the stylus is lowered at a constant speed.

3. The method of claim 2, wherein said constant speed is 508.0 mm/min.

4. The method of claim 1, wherein the sample is a glove finger.

5. The method of claim 1, wherein the sample is taken from a glove palm or glove cuff.

6. The method of claim 1, wherein the sample is a uniform thickness film.

7. The method of claim 1, further comprising calculating the rupture strength of the sample by using the formula:

$$(0.5) * \left(\begin{array}{c}\text{Stylus Travel Distance} \\ \text{at Rupture}\end{array}\right) * \left(\begin{array}{c}\text{Stylus Force} \\ \text{at Rupture}\end{array} \Big/ \begin{array}{c}\text{Sample} \\ \text{Thickness}\end{array}\right)$$

8. The method of claim 1, further comprising forming an aperture in the bottom of said column for vacuum protecting.

9. The method of claim 1, wherein said column has a diameter of 30 mm and said stylus has a diameter of 7 mm.

10. A method for calculating the penetration depth of a blunt object for a film sample, comprising:

securing the sample to the top end of a column,

lowering a stylus to contact the sample until movement of the stylus is not possible without movement of the sample,

recording a vertical height of the stylus,

moving the stylus downward until the sample ruptures, and

measuring the distance traveled by the stylus from the starting point and the rupture point.

11. The method of claim 10, wherein the stylus is lowered at a constant speed.

12. The method of claim 11, wherein said constant speed is 508.0 mm/min.

13. The method of claim 10, wherein the sample is a glove finger.

14. The method of claim 10, wherein the sample is taken from a glove palm or glove cuff.

15. The method of claim 10, wherein the sample is a uniform thickness film.

16. The method of claim 1, wherein said stylus is longer than said column.

17. The method of claim 10, wherein said stylus is longer than said column.

18. The method of claim 1, wherein the securing the sample to the top end of the column comprises extending the edge of the sample along the outside surface of the column.

19. The method of claim 10, wherein the securing the sample to the top end of the column comprises extending the edge of the sample along the outside surface of the column.